

Abstract

An automated container management system including at least one robotic device, a container inverting apparatus, a conveyor system, a container stack, and a storage and retrieval system transfer vehicle. The first and second robotic devices each having a container cooperation head.

- 5 The container cooperation head has pneumatically driven magnetic lift assemblies for stacking and unstacking multiple containers as a single unit between the conveyor system and the container stack. The container storage and retrieval system transfer vehicle services the container stack. An inverting apparatus inverts the multiple containers before stacking and after unstacking to facilitate storage of the multiple containers in an inverted position.